IN THE UNITED STATES PATENT AND TRADEMARK OFFICE In re Patent Application of Atty Dkt. 1579-601 C# M# HAYNES, Barton F. Scroup Art Unit: 1644

Serial No. 09/956,940

September 21, 2001

Title:

USE OF SYNTHETIC PEPTIDES TO INDUCE TOLERANCE TO PATHOGENIC T AND B CELL EPITOPES OF AUTOANTIGENS OR INFECTIOUS AGENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

#### **INFORMATION DISCLOSURE STATEMENT**

Examiner: Schwadron, R.

Date: December 1, 2003

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

#### Correspondence Address Indication Form Attached. Fees are attached as calculated below: Total effective claims after amendment 0 minus highest number previously paid for 20 (at least 20) =Х \$ 18.00 \$ ' 0.00 Independent claims after amendment 0 minus highest number previously paid for (at least 3) =3 Х \$ 84.00 0.00 If proper multiple dependent claims now added for first time, add \$280.00 (ignore improper) 0.00 Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s) (\$110.00/1 month; \$410.00/2 months; \$930.00/3 months) \$ 0.00 Terminal disclaimer enclosed, add \$ 110.00 \$ 0.00 First/second submission after Final Rejection pursuant to 37 CFR 1.129(a) (\$750.00) 0.00 Please enter the previously unentered , filed ☐ Submission attached Subtotal 0.00 If "small entity," then enter half (1/2) of subtotal and subtract -\$ 0.00 ☐ Applicant claims "small entity" status. Statement filed herewith Rule 56 Information Disclosure Statement Filing Fee (\$180.00) \$ 0.00 Assignment Recording Fee (\$40.00) \$ 0.00Other: 0.00

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

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MJW:tat

NIXON & VANDERHYE P.C.

By Atty: Mary J. Wilson, Reg. No. 32,955

TOTAL FEE ENCLOSED \$

Signature:

0.00



### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

HAYNES, Barton F.

Atty. Ref.: 1579-601; Confirmation No. 4369

Appl. No. 09/956,940

Group: 1644

Filed: September 21, 2001

Examiner: Schwadron, R.

For: USE OF SYNTHETIC PEPTIDES TO INDUCE TOLERANCE TO PATHOGENIC T AND B CELL EPITOPES OF AUTOANTIGENS OR INFECTIOUS AGENTS

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December 1, 2003

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

## INFORMATION DISCLOSURE STATEMENT

Attached are PTO-1449 Forms listing references that are of record in connection with one or more of the applications from which this case claims priority. The Examiner is respectfully requested to initial and return the attached Forms. Should the Examiner require additional copies of any of the listed documents, he is requested to so indicate and same will be provided.

While no official fee is believed to be required, authorization is hereby given to debit the undersigned firm's deposit account (14-1140, Order No. 1579-601) should the Office take a different view.

HAYNES, Barton F. Appl. No. 09/956,940 December 1, 2003

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:

Reg. No. 32,955

MJW:tat

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#### INFORMATION DISCLOSURE **CITATION**

(Use several sheets if necessary)

Atty. Docket No. Serial No.

1579-601 Applicant

HAYNES, Bart n F.

09/956,940

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<u> </u>			U.S. PATENT DOCUMENTS			<u> </u>	
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS		DATE OPRIATE
	5,993,819	11/1999	Haynes et al				
	5,019,387	5/1991	Haynes				
		FOI	REIGN PATENT DOCUMENTS				
						TRANS	LATION
	DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
	WO 87/02775	5/1987	WIPO				
	Í	ĺ					

 OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)								
Haynes et al, J. Exp. Med. 177:717-727 (1993)								
Nossal, Chapter 19 from Fundamentals of Immunology, Second Edition, Ed. W.E. Paul, Raven Press, pp. 5710585 (1989)								
Fahey et al, Clin. Exp. Immunol. 88:1-9 (1992)								
Jacobson et al, The Journal of Immunology 146:11-55-1162 (1991)								
Hoffmann et al, Proc. Natl. Acad. Sci. USA 88:3060-3064 (1991)								
 Wigzell, The FASEB Journal 5:2406-2411 (1991)								
 Hart et al, Proc. Natl. Acad. Sci. USA 88:9448-9452 (1991)								
 Papadouli et al, Biochem. J. 269:239-245 (1990)								
 Mori et al, Biochemical and Biophysical Research Communications 178(1):165-172 (1991)								
 Murakami et al, Biochemical and Biophysical Research Communications 171(1):512-518 (1990)								
 Offner et al, The Journal of Immunology 141(1):3828-3832 (1988)								
 Wucherpfennig et al, Immunology Today 12(8):277-282 (1991)								
Sanui et al, The Journal of Experimental Medicine 169:1947-1960 (1989)								
 Grassi et al, J. Exp. Med. 174:53-62 (1991)								
 Nature 333:215 (1988)								
 Golding et al, Journal of Experimental Medicine 167:914-923 (1988)								
 Takai et al, Biochemical and Biophysical Research Communications 179(1):319-326 (1991)								
 Piraphatdist et al, Biochemical and Biophysical Communications 172(2):529-536 (1990)								
 Hendricks et al, Journal of Immunology 142(1):263-269 (1989)								
 Weigel, "Immunogenicity of Protein Antigens: Repertoire and Regulation", Vol. II, Chapter 5G, Sercarz and Berzofsky (Editors), pgs. 51-57								
 Gahring et al, The Journal of Immunology 145:1318-1323 (1990)								

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*Examiner			
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# INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Atty. Dock t No.

1579-601

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U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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	OTHER DOC	UMENTS (i	ncluding Author, Title, Date, Pertinent	pages, e	tc.)	
			logy 143(10):3148-3156 (1989)	<u> </u>		
	Sprent et al, Science 24					
	Haynes et al, "Induction Synthetic gp120 Envelo	of HIVMN ppe Peptides"	Neutralizing Antibodies in Primates Using a , The Journal of Immunology 151(3):1646-16	Prime-Boo 53 (1993)	ost Regimen	of Hybrid
	(1978)		Antibodies with Modified Allergens", Int. Arc	_		
	Lee et al, "Suppression (1978)	of Reaginic	Antibodies with Modified Allergens", Int. Arc	hs. Allerg	y Appl. Imm	un. 56:193-206
	(1981)		Antibodies with Modified Allergens", Int. Are			
Α.	Lee et al, "Suppression (1981)	of Reaginic	Antibodies with Modified Allergens", Int. Arc	hs. Allerg	y Appl. Imm	un. 64:100-114
	Abuchowski et al, "Alte Polyethylene Glycol", T	ration of Imi	munological Properties of Bovine Serum Albu f Biological Chemistry 252(11):3578-3581 (1	ımin by C 977)	ovalent Attac	chment of
	Abuchowski et al, "Effect of Covalent Attachment of Polyethylene Glycol on Immunogenicity and Circulating Life of Bovine Liver Catalase", The Journal of Biological Chemistry 252(11):3582-3586 (1977)					lating Life of
	Abuchowski et al, "Cancer Therapy with Chemically Modified Enzymes. I. Antitumor Properties of Polyethylene Glycol-Asparaginase Conjugates", Cancer Biochem. Biophys. 7:175-186 (1984)					ethylene Glycol-
	Davis et al, "Soluble, Nonantigenic Polyethylene Glycol-Bound Enzymes", Biomedical Polymers Polymeric Materials and Pharmaceuticals for Biomedical Use", pp. 441-452 (1980)					
	Edgington, Bio/Technol					
	Takahashi et al, J. of Ex					
	Palker et al, J. of Immunol. 142:3612 (198?)					
	Girard et al, J. of Cell. E	Biochem. – A	bstract L415 (1990) UCLA Symp. on Mol an	d Cell. Bi	ol. p. 150	
	Weinhold et al, J. Cell.	Biochem. – A	Abstract L550 (1990) UCLA Symp. on Mol. a	nd Cell. B	iol. p. 180	
			trat L315 (1990) UCLA Symp. on Mol. and C	ell. Biol.	p. 134	
	Palker et al, Proc. Natl.		5:1932-1936 (1988)			
	Gallaher, Cell 50:327-32					
	Ellis, in Vaccines, Plotkin and Mortimer, eds., W.B. Saunders Co., p. 568-575 (1988)					

*Examiner	Date Considered	

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# 1 INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

OIP = YOU	
1579-601	Serial No.
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HAYNES, Bart n F. BADEMAR	
Filing Date	Group
Sept mber 21, 2001	1644

	OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)
*EXAMINER INITIAL	
	Pert et al, "Octapeptides Decuted from the Neuropeptide Receptor-Like Pattern of Antigen T4 in Brain Potently Inhibit Human Immunodeficiency Virus Receptor Binding and T-Cell Infectivity", Proc. Natl. Acad. Sci. USA 83:9254-9258 (1986)
	Sarin et al, "Neutralization of HTLV-III/LAV Replication By Antiserum to Thymosin α <sub>1</sub> ", Science 232:1135-1138 (1986)
_	Kennedy et al., "Antiserum to A Synthetic Peptide Recognizes the HTLV-III Envelope Glycoprotein", Science 231:1556-1560 (1986)
	Chanh et al, "Induction of Anti-HIV Neutralizing Antibodies By Synthetic Peptides", The EMBO Journal 5(11):??? (????)
	Putney et al, "HTLV-III/LAV-Neutralizing Antibodies to an E. Coli-Produced Fragment of the Virus Envelope, Science 234:1392-1395 (1986)
	Kennedy et al, "Use of a Resin-Bound Synthetic Peptide for Identifying A Neutralizing Antigenic Determinant Associated with the Human Immunodeficiency Virus Envelope", The Journal of Biological Chemistry 262(12):5769-5774 (1967)
	Cease et al, "Helper T-Cell Antigenic Site Identification in the Acquired Immunodeficiency Syndrome Virus gp120 Envelope Protein and Induction of Immunity in Mice to the Native Portein Using a 16-Residue Synthetic Peptide", Proc. Natl. Acad. Sci. USA 84:4249-4253 (1987)
	Ho et al, "Human Immunodeficiency Virus Neutralizing Antibodies Recognize Several Conserved Domains on the Envelope Glycoproteins", Journal of Virology 61(6):2024-2028 (1987)
	Krohn et al, "Specific Cellular Immune Response and Neutralizing Antibodies in Goats Immunized with Native or Recombinant Envelope Proteins Derived from Human T-Lymphotrophic Virus Type III <sub>B</sub> and in Human Immunodeficiency Virus-Infected Men", Proc Natl. Acad. Sci. USA 84:4994-4998 (1987)
	Starcich et al, "Identification and Characterization of Conserved and Variable Regions in the Envelope Gene of HTLV-III/LAV, The Retrovirus of AIDS", Cell 45:637-648 (1986)
	Robey et al, "Prospect for Prevention of Human Immunodeficiency Virus Infection: Purified 120-kDa Envelope Glycoprotein Induces Neutralizing Antibody", Proc. Natl Acad. Sci. USA 83:7023-7027 (1986)
	Wang et al, "Detection of Antibodies to Human T-Lymphotropic Virus Type III By Using A synthetic Peptide of 21 Amino Acid Residues Corresponding to a Highly Antigenic Segment of gp41 Envelope Protein", Proc. Natl. Acad. Sci. USA 83:6159-6163 (1986)
	Sodroski et al, "Role of the HTLV-III/LAV Envelope in Synctium Formation and Cytopathicity", Nature 322:470-474 (1986)
	Dalgleish et al, "The CD4 (T4) Antigen is an Essential Component of the Receptor for the AIDS Retrovirus", Nature 312:763-767 (1984)
	Hu et al, "Expression of AIDS Virus Envelope Gene in Recombinant Vaccinia Viruses", Nature 320:??? (1986)
	Chakrabarti et al, "Expression of the HTLV-III Envelope Gene by a Recombinant Vaccinia Virus", Nature 320:535-540 (1986)
	Zarling et al, "Proliferative and Cytotoxic T Cells to AIDS Virus Glycoproteins in Chimpanzees Immunized with a Recombinant Vaccinia Virus Expressing AIDS Virus Envelope Glycoproteins", The Journal of Immunology 139:988-990 (1987)
	Hu et al, "Effect of Immunization with a Vaccinia-HIV env Recombinant on HIV Infection of Chimpanzees", Nature 328:721-723 (1987)

*Examiner	Date Considered	
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Sheet 4	• 4	Atty. Docket No.	<u>~</u>	Serial No.		
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*EXAMINER		U.S. PATEN	T DOCUMENTS			
INITIAL						
	OTHER DOCUM	ENTS (including Au	thor, Title, Date, Per	tinent pages, etc.)		
	Ratner et al, "Complete nuc	leotide sequence of the	AIDS virus, HTLV-III	", Nature 313:277-284 (1985)		
	Newmark, Peter, "Problems					
	Norman, Colin, "AIDS Viru	us Presents Moving Tar	get", Science 230:1357	-1358 (1985)		
	container as in immunodom	region at the COOH to	erminus human immuno	odeficiency virus gp120 envelop protein		
	container as in minimunouour	mant epitope, Proc. N	all. Acad. Sci. USA 84	:24/9-2483 (198/)		
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